

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application.

**Listing of Claims:**

Claim 1 (currently amended): A method for the culture of mammalian cells comprising the steps of:

- i) providing a cell culture vessel comprising:
  - a) mammalian cells;
  - b) a cell culture support comprising a substrate wherein said substrate comprises a cell culture surface wherein said surface comprises a polymer of an acid monomer and attached thereto, fibroblast feeder cells;
  - c) cell culture medium sufficient to support the growth of said mammalian cells wherein said medium does not include serum;
- ii) providing cell culture medium and conditions which promote the proliferation of said mammalian cells.

Claim 2 (original): A method according to Claim 1 wherein said mammalian cells are human.

Claim 3 (currently amended): A method according to Claim 1 ~~or 2~~ wherein said mammalian cells are maintained in culture in an un-differentiated state.

Claim 4 (currently amended): A method according to ~~any of Claims 1-3~~ Claim 1 wherein said mammalian cells are selected from the group consisting of: epidermal keratinocytes; dermal fibroblasts; adult skin stem cells; embryonic stem cells; melanocytes, corneal fibroblasts, corneal epithelial cells, corneal stem cells; intestinal mucosa fibroblasts, intestinal mucosa keratinocytes, oral mucosa fibroblasts, oral mucosa keratinocytes, urethral fibroblasts and epithelial cells, bladder fibroblasts and epithelial cells, neuronal glial cells and neural cells, hepatocyte stellate cells and epithelial cells.

Claim 5 (original): A method according to Claim 4 wherein said mammalian cells are autologous keratinocytes.

Claim 6 (currently amended): A method according to ~~any of Claims 1-5~~ Claim 1 wherein the number of said mammalian cells and said fibroblast cells is at a ratio of about between 1:1-1:5.

Claim 7 (original): A method according to Claim 6 wherein said ratio is about 5:1.

Claim 8 (currently amended): A method according to ~~any of Claims 1-7~~ Claim 1 wherein said mammalian cells are seeded at about  $0.75 \times 10^4$  cells/mm<sup>2</sup>.

Claim 9 (currently amended): A method according to ~~any of Claims 6-8~~ Claim 6 wherein said mammalian cells are keratinocytes.

Claim 10 (currently amended): A method according to ~~any of Claims 1-9~~ Claim 1 wherein said substrate comprises a non-porous polymer.

Claim 11 (currently amended): A method according to ~~any of Claims 1-9~~ Claim 1 wherein said substrate is a solid phase substrate.

Claim 12 (currently amended): A method according to ~~any of Claims 1-9~~ Claim 1 wherein said substrate is a porous material.

Claim 13 (original): A method according to Claim 12 wherein said material is a woven material.

Claim 14 (original): A method according to Claim 12 wherein said material is a non-woven material.

Claim 15 (currently amended): A method according to ~~any of Claims 1-14~~ Claim 1 wherein said cell culture surface comprises a polymer comprising an acid content of at least 2%.

Claim 16 (currently amended): A method according to ~~any of Claim 1-15~~ Claim 1 wherein said surface comprises a polymer comprising an acid content between about 2-20%.

Claim 17 (currently amended): A method according to ~~any of Claims 1-14~~ Claim 1 wherein said surface comprises a polymer comprising an acid content greater than 20%.

Claim 18 (currently amended): A method according to ~~Claims~~ Claim 15 or 16 wherein said polymer comprises an acrylic acid monomer with at least 2% acid content.

Claim 19 (original): A method according to Claim 18 wherein said acid content is between 2% and 10%.

Claim 20 (original): A method according to Claim 19 wherein said acid content is about 4-5%.

Claim 21 (currently amended): A method according to ~~any of Claims 1-20~~ Claim 1 wherein said polymer comprises an acid co-polymer.

Claim 22 (currently amended): A method according to ~~any of Claims 1-21~~ Claim 1 wherein said fibroblast feeder cells are non-proliferative.

Claim 23 (original): A method according to Claim 22 wherein said fibroblast feeder cells are rendered non-proliferative by lowering the calcium concentration of the growth medium.

Claim 24 (currently amended): A method according to ~~any of Claims 1-23~~ Claim 1 wherein said fibroblast feeder cells are human fibroblasts.

Claim 25 (original): A method according to claim 24 wherein said fibroblasts are dermal or oral fibroblasts.

Claim 26 (currently amended): A method according to Claim 24 ~~or 25~~ wherein said fibroblasts are autologous.

Claim 27 (original): A cell culture vessel comprising: a cell culture support comprising a substrate wherein said substrate comprises a cell culture surface wherein said surface comprises a polymer of an acid monomer and attached thereto, fibroblast feeder cells.

Claim 28 (original): A vessel according to Claim 27 wherein said vessel further comprises mammalian cells and cell culture medium which medium does not include serum.

Claim 29 (original): A vessel according to Claim 28 wherein said mammalian cells are selected from the group consisting of: epidermal keratinocytes; dermal fibroblasts; adult skin stem cells; embryonic stem cells; melanocytes, corneal fibroblasts, corneal epithelial cells, corneal stem cells; intestinal mucosa fibroblasts, intestinal mucosa keratinocytes, oral mucosa fibroblasts, oral mucosa keratinocytes, urethral fibroblasts and epithelial cells, bladder fibroblasts and epithelial cells, neuronal glial cells and neural cells, hepatocyte stellate cells and epithelial cells.

Claim 30 (currently amended): A vessel according to Claim 29 wherein said mammalian cells are keratinocytes, ~~preferably autologous keratinocytes~~.

Claim 31 (original): A method to treat a cell culture vessel comprising the steps of:

- i) providing at least one acid monomer source in a gas feed;
- ii) creating a plasma of said acid monomer; and
- iii) bringing into contact a cell culture vessel with said plasma monomer to provide a cell culture vessel comprising an acid polymer.

Claim 32 (original): A method according to Claim 31 wherein said acid monomer source comprises 30-99% acid monomer.

Claim 33 (original): A method according to Claim 31 wherein said acid monomer source consists of a 100% acid monomer source.

Claim 34 (original): A method according to Claim 33 wherein said acid monomer source consists of a 100% acrylic acid.

Claim 35 (original): A method to treat a cell culture vessel comprising the steps of:

- i) providing a selected ratio of an acid containing monomer and a hydrocarbon in a gas feed;
- ii) creating a plasma of said mixture;
- iii) bringing into contact a cell culture vessel with said plasma mixture to provide a cell culture surface comprising an acid co-polymer.

Claim 36 (original): A method according to Claim 35 wherein said plasma is created by means of electrical power input coupled by means of a copper coil or bands.

Claim 37 (original): A method to culture mammalian cells on a therapeutic vehicle comprising the steps of:

- i) providing a preparation comprising:
  - a) mammalian cells;
  - b) a therapeutic vehicle wherein said vehicle comprises a substrate which comprises a surface wherein said surface comprises a polymer of an acid monomer and attached thereto, fibroblast feeder cells;
  - c) cell culture medium sufficient to support the growth of said mammalian cells wherein said medium does not include serum; and
- ii) providing cell culture conditions which promote the proliferation of said mammalian cells on said therapeutic vehicle.

Claim 38 (original): A method according to Claim 37 wherein said mammalian cells are human.

Claim 39 (currently amended): A method according to Claim 37 ~~or 38~~ wherein said mammalian cells are selected from the group consisting of: epidermal keratinocytes; dermal fibroblasts; adult skin stem cells; embryonic stem cells; melanocytes, corneal fibroblasts, corneal epithelial cells, corneal stem cells; intestinal mucosa fibroblasts, intestinal mucosa keratinocytes, oral mucosa fibroblasts, oral mucosa keratinocytes, urethral fibroblasts and epithelial cells, bladder fibroblasts and epithelial cells, neuronal glial cells and neural cells, hepatocyte stellate cells and epithelial cells.

Claim 40 (currently amended): A method according to ~~any of Claims 37-39~~ Claim 37 wherein said mammalian cells are autologous.

Claim 41 (currently amended): A method according to Claim 39 ~~or 40~~ wherein said mammalian cells are keratinocytes.

Claim 42 (currently amended): A method according to ~~any of Claims 37-41~~ Claim 37 wherein said fibroblast feeder cells are human.

Claim 43 (currently amended): A method according to ~~any of Claims~~ Claim 42 wherein said fibroblast feeder cells are dermal fibroblasts or human oral fibroblasts.

Claim 44 (currently amended): A method according to Claim 42 ~~or 43~~ wherein said feeder cells are autologous.

Claim 45 (currently amended): A method according to ~~any of Claims 37-44~~ Claim 37 wherein the number of said mammalian cells and said fibroblast cells is at a ratio of about between 1:1-5.1.

Claim 46 (original): A method according to Claim 45 wherein said ratio is about 5:1.

Claim 47 (currently amended): A method according to Claim 45 ~~or 46~~ wherein said mammalian cells are keratinocytes and are in a ratio of about 5:1 with said fibroblast cells.

Claim 48 (currently amended): A method according to ~~any of Claims 37-47~~ Claim 37 wherein said mammalian cells are seeded at about  $0.75 \times 10^4$  cells/mm<sup>2</sup>.

Claim 49 (currently amended): A method according to ~~any of claims 45-48~~ Claim 45 wherein said therapeutic vehicle comprises a substrate composed of a polymeric material wherein the ratio of mammalian cells to fibroblast cells is about 5:1.

Claim 50 (original): A method according to Claim 49 wherein said substrate is composed of a vinyl polymer.

Claim 51 (original): A method according to Claim 50 wherein said vinyl polymer is selected from the group consisting of: polyvinyl chloride, polyvinyl acetate, polyvinyl alcohol.

Claim 52 (currently amended): A therapeutic vehicle ~~obtainable~~ produced by the method according to ~~any of Claims 37-51~~ Claim 37.